

1982

WASHINGTON MILL SURVEY

WOOD CONSUMPTION AND MILL CHARACTERISTICS

WASHINGTON MILL SURVEY
SERIES REPORT NO. 8

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DAVID LARSEN
LOREN GEE
DONALD A. BEARDEN

STATE OF WASHINGTON
Department of
NATURAL RESOURCES
BRIAN BOYLE
Commissioner of Public Lands
ART STEARNS
Supervisor

ACKNOWLEDGMENTS

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Inquiries concerning information in this report should be directed to:

David N. Larsen
Analysis and Planning Section EV-31
State of Washington Department of Natural Resources
Olympia, Washington 98504
Phone: (206) 753-1262

FOREWORD

This report presents comprehensive statistics on wood consumption and the characteristics of primary wood processing mills¹ operating in the State of Washington during calendar year 1982. It documents the findings of the eighth biennial survey about mill characteristics, wood flows and the input of raw materials into the state's six wood-using industries:

- o Sawmills
- o Veneer and plywood mills
- o Pulp and board mills
- o Pole, post and piling Mills
- o Shake and shingle mills
- o Log export operations

The 1982 statistics were obtained from a mail survey with telephone followup conducted in 1983. Firms contacted were based on the most up-to-date mailing list compiled.

Since this survey was a 100 percent canvas, no sampling error is involved.

¹Mills that use roundwood or are the original firm to process the raw material.

However, in a few cases, some data had to be estimated based on extrapolations from previous reports. Log imports to Washington from British Columbia Crown lands are included in the out-of-state National Forest category. In total, this report provides the best and most reliable estimate of the status of wood-using industries in Washington as of 1982.

Information about individual mills or companies is confidential. Data that could reveal individual mill identity have been combined with other data to avoid disclosure.

While not a major objective of the survey, production data were obtained to provide information on wood requirements for given levels of production and to generate residue volumes.

The text highlights some statistics presented in the tables. It also provides a summary of the 1982 timber economy as well as recent trend information.

It is expected that the residue, commodity production and wood consumption information will aid in tracking production and consumption trends.

ABBREVIATIONS

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BF = board feet

M = thousand

MBF = thousand board feet Scribner

MMBF = million board feet Scribner

SF = square feet

MSF = thousand square feet 3/8 inch basis

MMSF = million square feet 3/8 inch basis

Square = square feet

M sq. = thousand squares

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Table number cross index
(Between the eight Washington mill survey reports†)
report year and table number

1982, 1980 and 1978	1976	1974	1972 and 1970	1968	1982	1978	1976	1974	1972 and 1970	1968
1	1	1	1	1†	41	41	42	41	39	36
2	2,261,761	2,25,741	2,24,721	21,23,671	42	42	43	42	40	37
3	3	3	3	3†	--	43	44	43	41	38
4	4	4	4	4	--	44	45	44	42	39
5	5	5	81	—	43	45	46	45	43	40
6	6	6,47,60,72	5,45,58,70	5,42,55,66	--	46	47	46	44	41
7	7,81,771	7,70,59	6,68,57	64,54	--	47	48,49	48,491	48,471	43,441
8	8,761	8,75,741	7,73,721	61,671	--	48	50	50	48	45
9	9	9	8	7	44	49	51	51	49	46
10	10,60	691,58	671,56	631,53	--	50	52	52	50	47
11	11	10	9	8	45	51	53	—	—	—
12	12	11	10	9	46	52	54	53	51	48
13	13	12	11	10	47	53	55	54	52	49
14	14	13	12	11	48	54	56	55	53	501
15	15	14	13	12	49	55	57	56	54	51
16	16	15	14	13	50	56	58	—	—	—
17	17	16	15	14	51	57	59	57	551	521
18	18	17	16	15	52	58	62	61	59	56
19	19	18	17	16	53	59	63	62	60	—
20	20	19	18	17	54	60	64	63,64,67	61,62,65	57,58,61
21	21	20	19	18	55	61	65	651	631	591
22	22	21	20	19	56	62	66	66	64	60
23	23	22	21	20	57	63	67	68	66	62
24	24	23	22	21	58	64	68	711	691	651
25	25	24	23	22	59	65	69	78	76	69
26	27	26	25	24	60	66	70	79	77	70
27	28	27	26	26	61	67	71	80	78	71
28	29	28	28	26	62	68	72	811	791	—
29	30	29	27	27	63	69	73	63,64,67	61,62,65	57,61
30	31	30	29	28	64	70	74	66	64	60
31	32	31	31	29	65	71	75	651	631	591
32	33	32	30	30	66	--	--	--	--	--
33	34	33	32	—	67	72	78	81	79	—
34	35	34	—	—	68	73	79	681	661	621
35	36	35	—	—	69	74	80	66	64	60
36	37	36	34	31	70	75	81	—	—	—
37	38	37	35	32	71	76	82	731	711	681
38	39	38	36	34	72	77	7†	701	681	641
39	40	39	37	35	—	—	—	76	74	—
40	41	40	38	33	—	—	—	77	75	—
					—	—	—	82	80	72

†Base year 1980

‡Contains part of the same information

COMPARISON

1972 - 1974 - 1976 - 1978 - 1980 - 1982

This section graphically compares data developed from the 1972, 1974, 1976, 1978, 1980 and 1982 surveys.

Number of Mills Included in the Surveys*

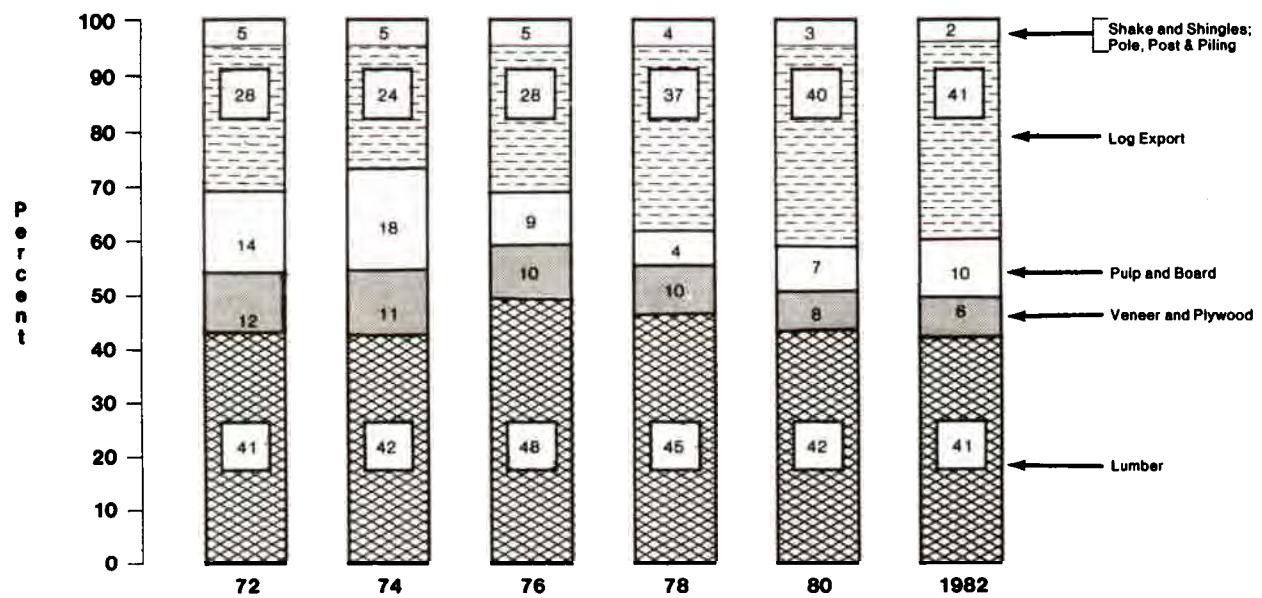
	1972	1974	1976	1978	1980	1982
Sawmills	177	187	175	182	208	169
Veneer and Plywood	41	37	36	36	34	27
Pulp and Board	26	25	26	26	23	21
Shake and Shingle	176	205	252	337	267	195
Pole, Post and Piling	25	23	22	23	21	13
Log Export	96	90	81	160	134	124
Totals	541	567	592	764	687	549

* Only primary wood processing mills that operated during the survey year are included.

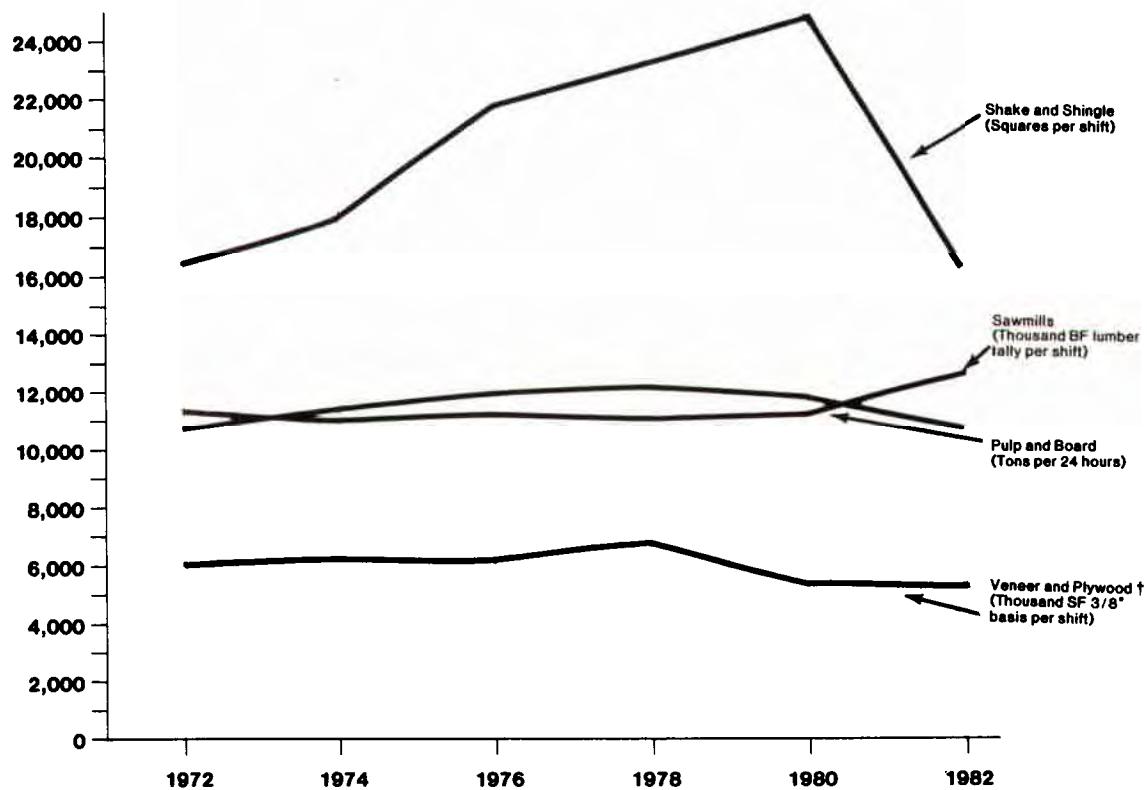
Trends

- o The total number of operations in the forest products industry decreased 20 percent from 1980 to 1982. The Pole, Post and Piling sector declined 38 percent; Shake and Shingle decreased 27 percent; Veneer and Plywood decreased 21 percent; and Sawmills decreased 19 percent. All sectors declined, but Pulp and Board and Log Export declined less than 10 percent.
- o The Lumber sector has shown a modest decline in roundwood consumption with a drop of 13 percent from 1980 to 1982.
- o The Log Export sector continued to account for an increasing share of total log consumption, expanding by one percent to 41 percent since 1980. Log Export is now the largest sector in terms of roundwood consumption. However, log export volume actually declined from 2.3 to 2.1 billion board feet Scribner from 1980 to 1982 which was an 8 percent decline.
- o Douglas fir accounted for 46 percent of the harvest volume in 1982, an increase of 5 per-
- cent from 1980. Douglas fir also expanded substantially as a portion of the Log Export sector's log consumption to 56 percent.
- o Those mills more than two-thirds dependent on a single ownership class for log supply decreased from 428 in 1980 to 346 in 1982. The total number of mills more than two-thirds dependent on public ownership decreased 23 percent; private ownerships had an 18 percent decrease. However, the percent of all operating mills more than two-thirds dependent on a single owner class increased slightly from 62 percent in 1980 to 63 percent in 1982.
- o The percent of wood and bark residues that are used continued to increase and in total reached 97 percent in 1982. The increase from 1980 was one percent. The Lumber sector increased use to slightly more than 98 percent. The Veneer and Plywood sector also had a use level slightly in excess of 98 percent. The Shake and Shingle Industry lags substantially, with the use of residues only at the 56 percent level.

Log consumption by type of industry (percent)



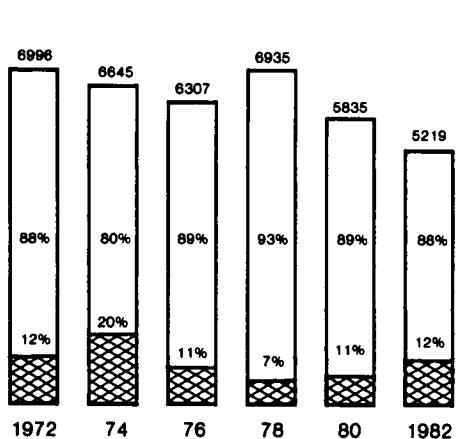
Installed shift capacity



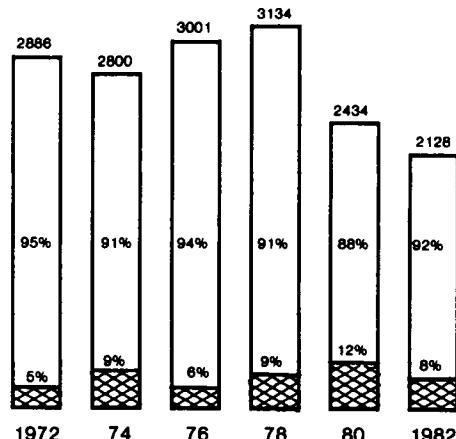
† Capacity excludes veneer capacity within a veneer and layup plant but includes layup and veneer-only, and layup-only operations.

**Roundwood consumption and percent utility logs by industry
(Million board feet Scribner)**

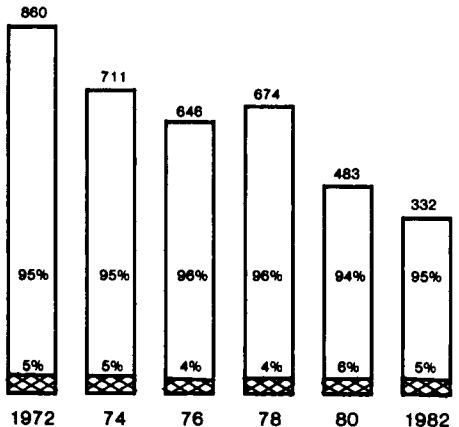
State Total



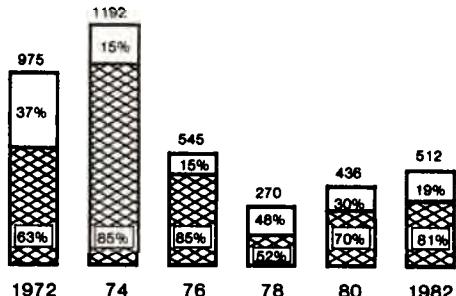
Lumber



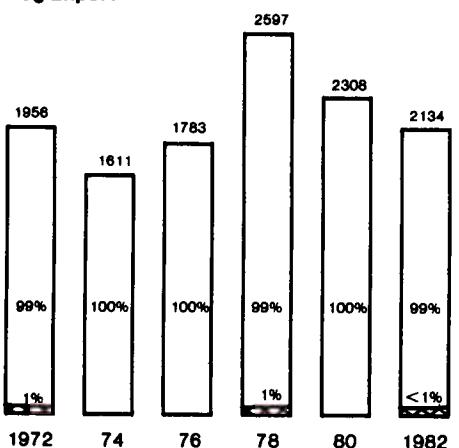
Veneer and Plywood



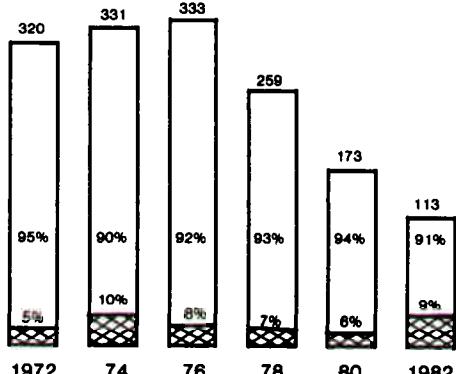
Pulp and Board



Log Export

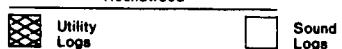


Shake & Shingle; Pole, Post & Piling



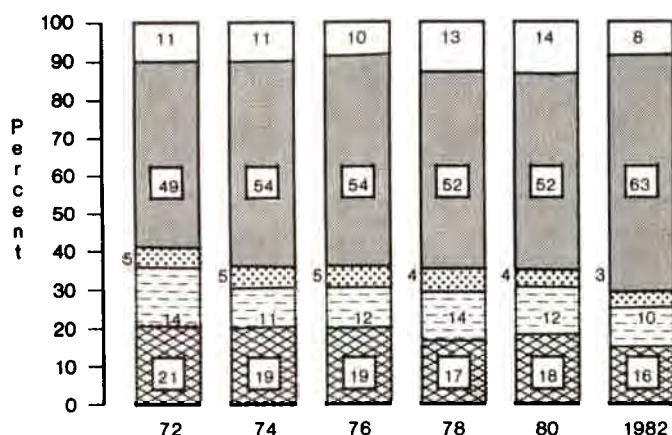
NOTE: Scale for height of bar is different for each industry. Hence visual comparison among the different industries is not valid.

Roundwood

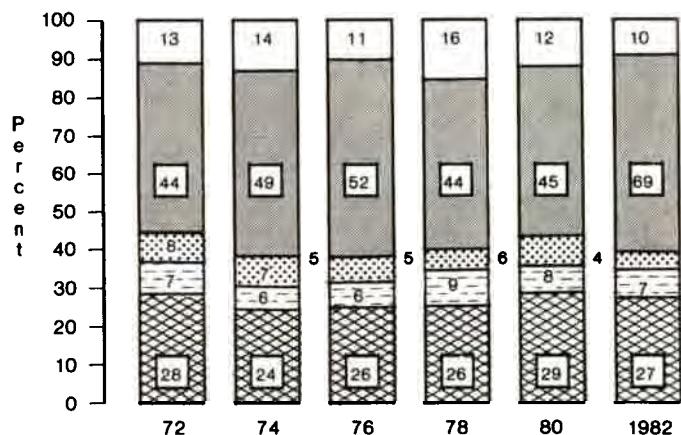


Log consumption by ownership class by industry (percent)

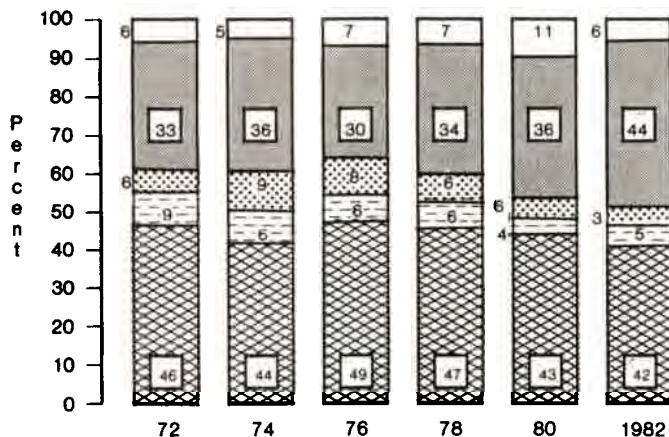
State Total



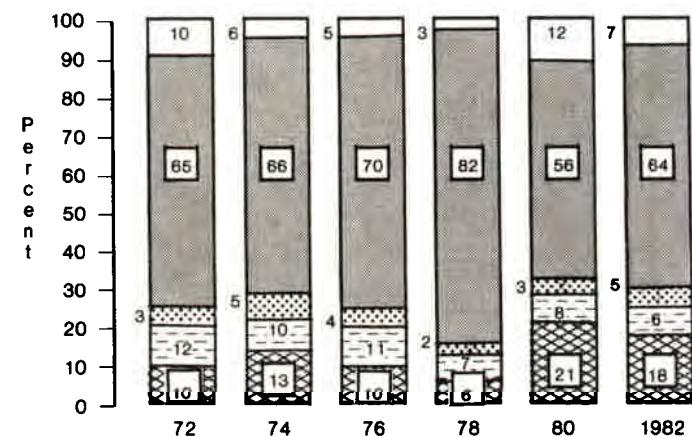
Lumber



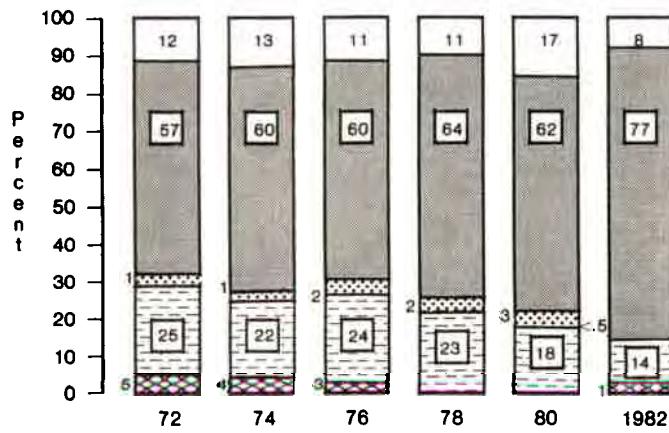
Veneer and Plywood



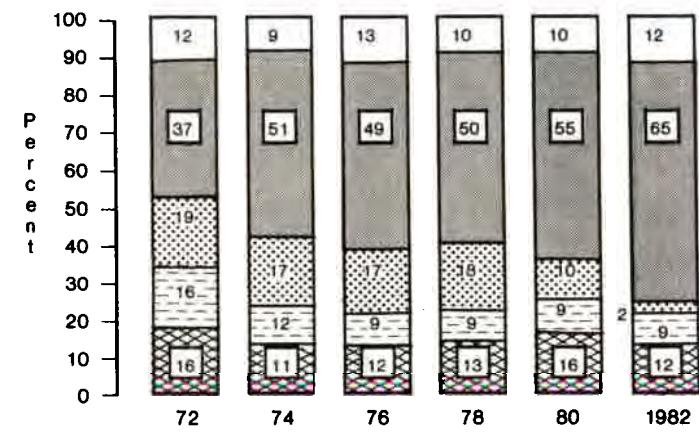
Pulp and Board



Log Export



Shake & Shingle; Pole, Post & Piling



National Forest

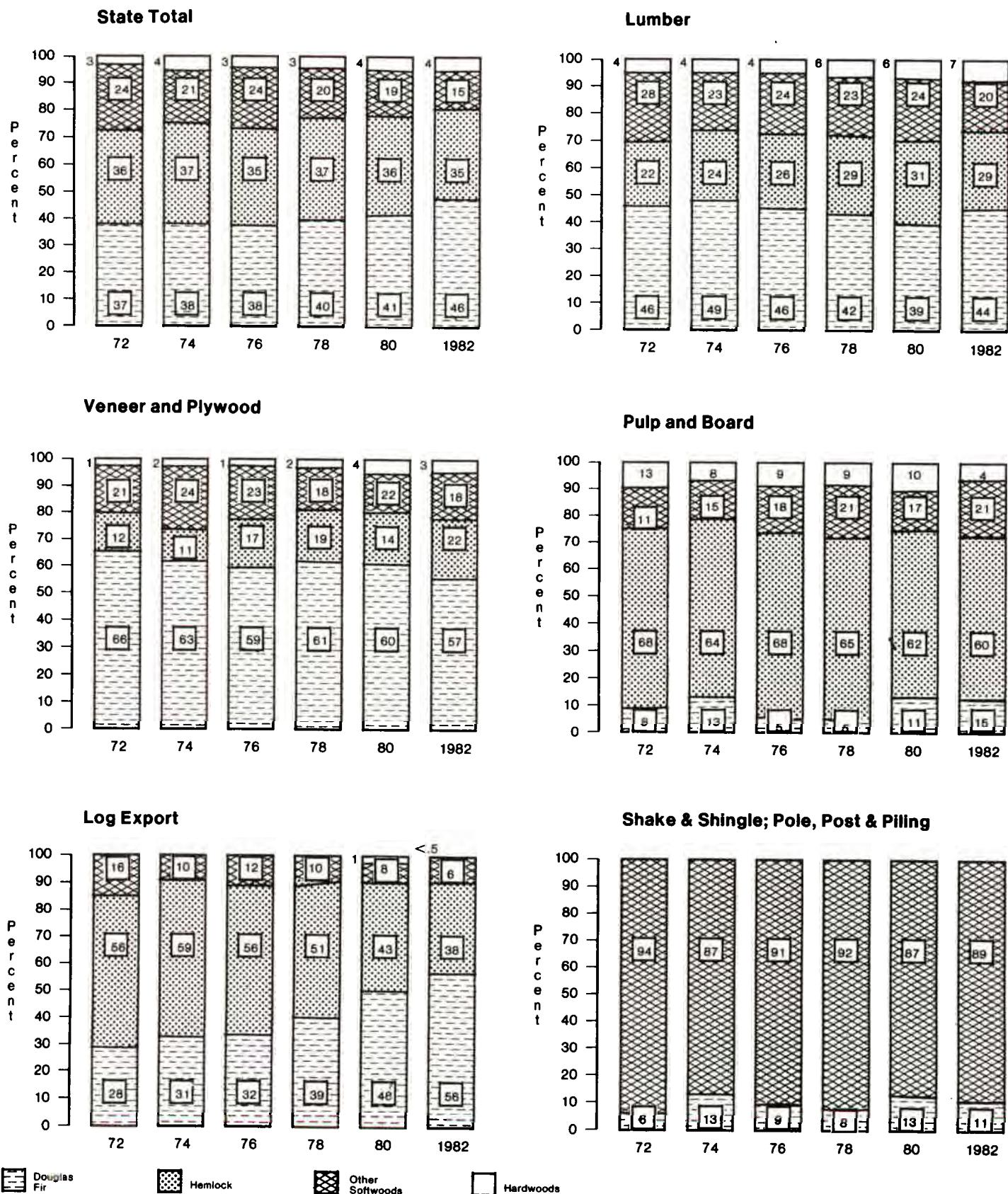
State

Other Public

Forest Industry

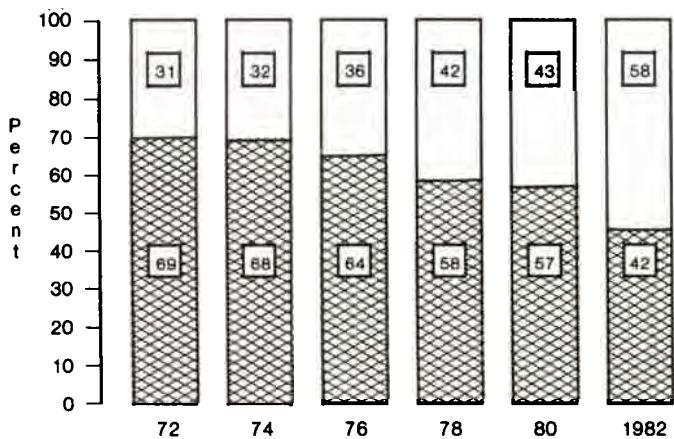
Farmer and Misc. Private

Log consumption by species by industry (percent)

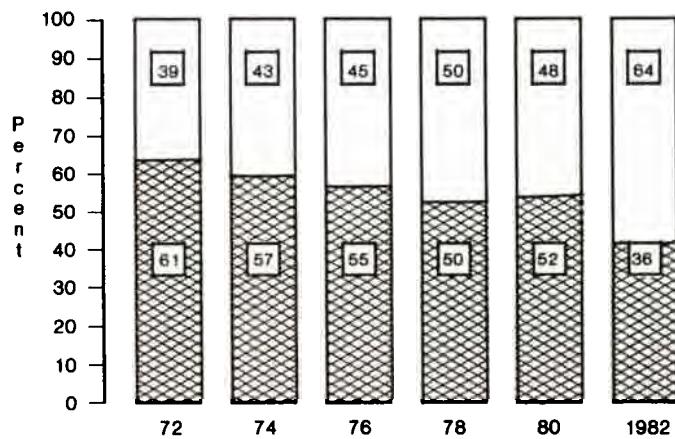


Log consumption by timber age group by industry (percent)

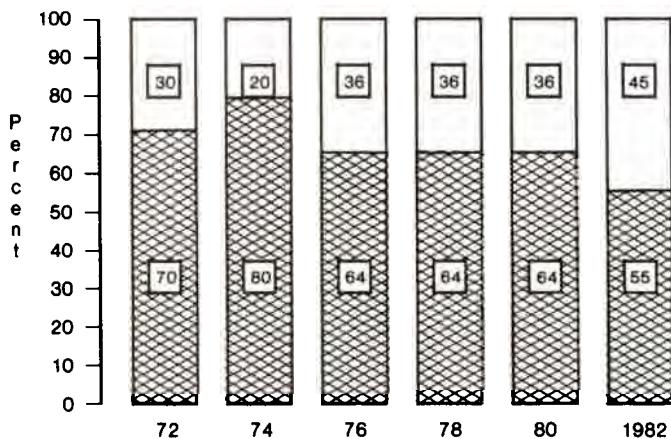
State Total



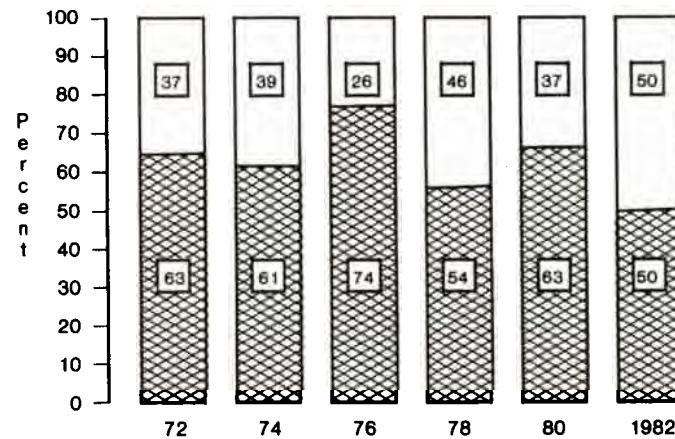
Lumber



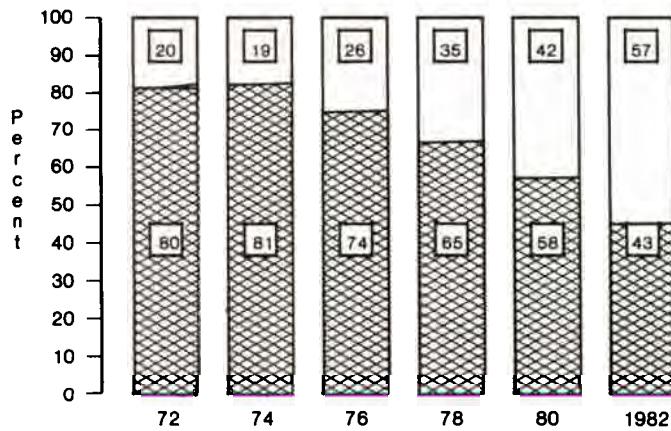
Veneer and Plywood



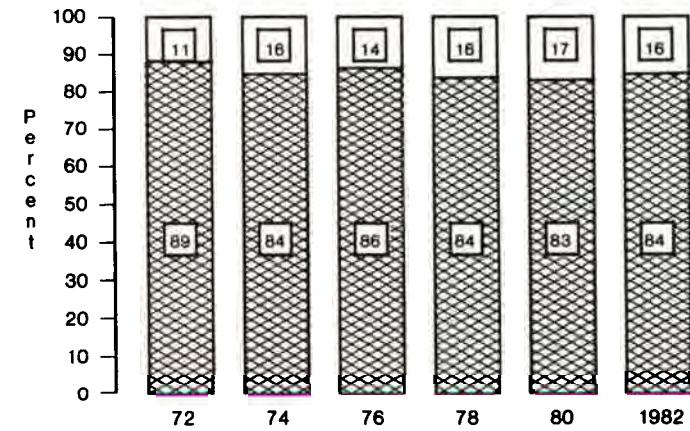
Pulp and Board



Log Export



Shake & Shingle; Pole, Post & Piling

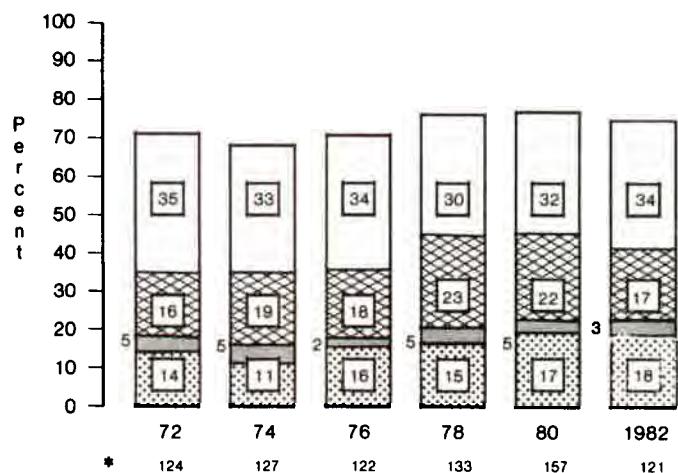


Old Growth (100+ Years)

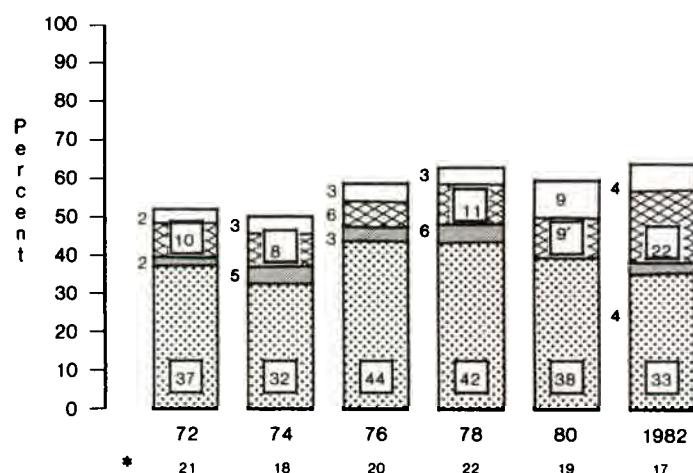
Young Growth (Less Than 100 Years)

Number of mills and percent of mills more than two-thirds dependent on a single ownership class for logs by industry

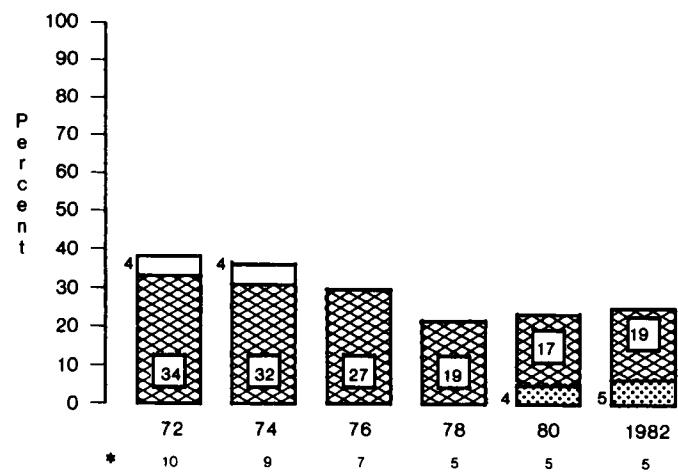
Lumber



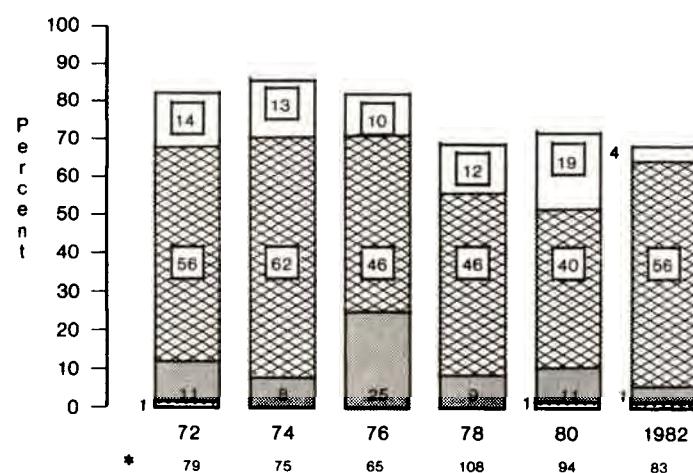
Veneer and Plywood



Pulp and Board

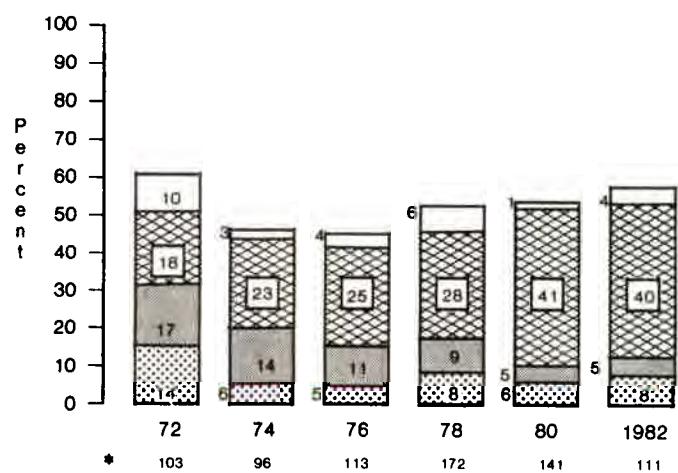


Log Export

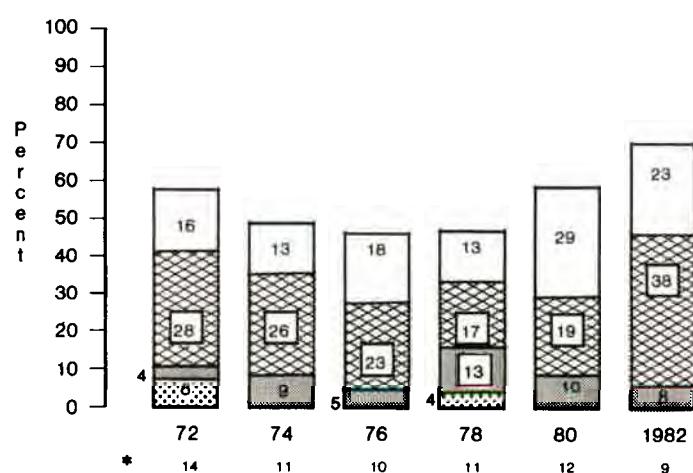


Comparable data not available for 1968 and 1970 surveys

Shake & Shingle



Pole, Post & Piling



National Forest

State and Other Public

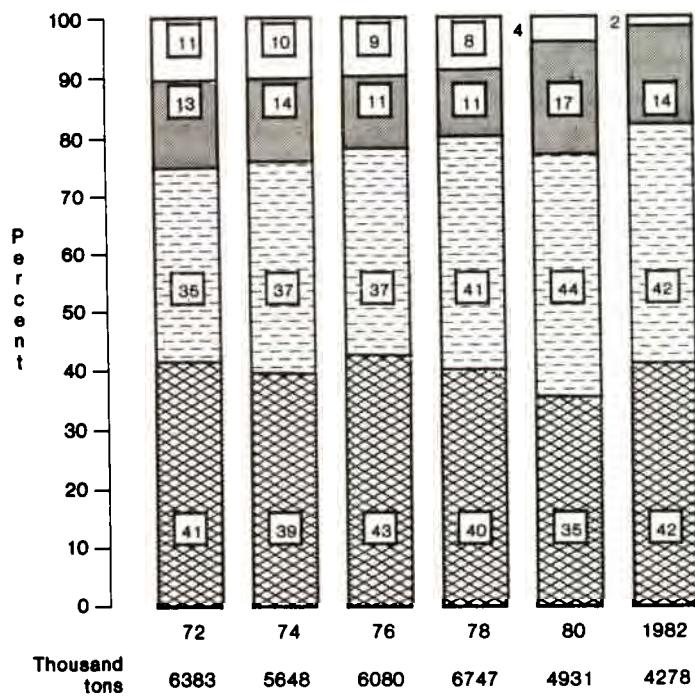
Forest Industry

Farmer and Misc. Private

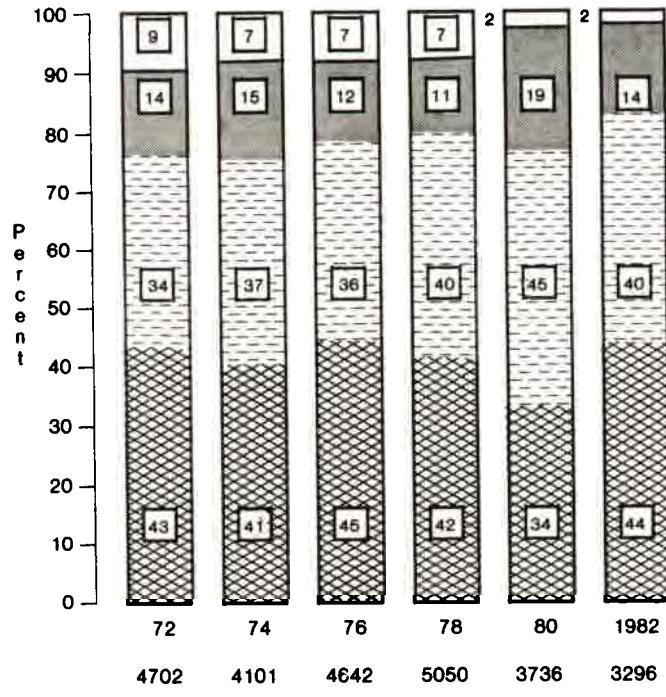
* Number of mills
2/3 dependent

Production and disposition of wood and bark residue by use and by industry (percent)

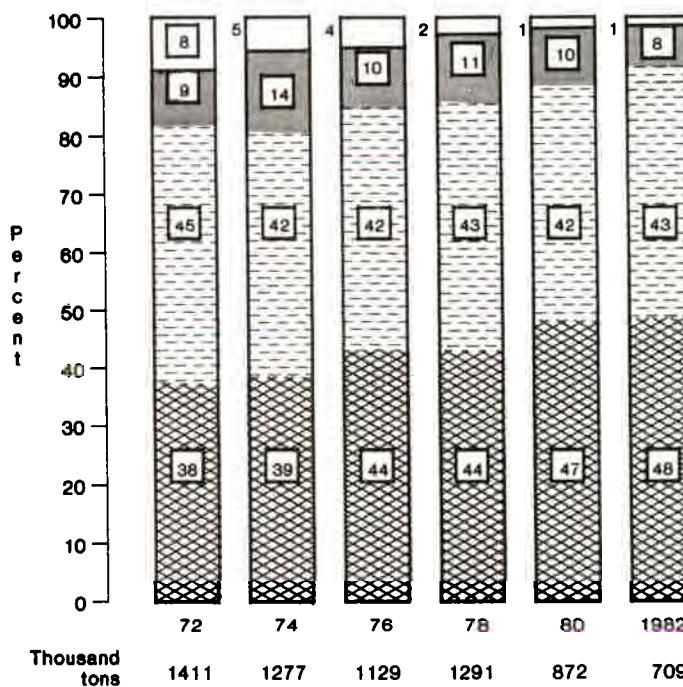
State Total



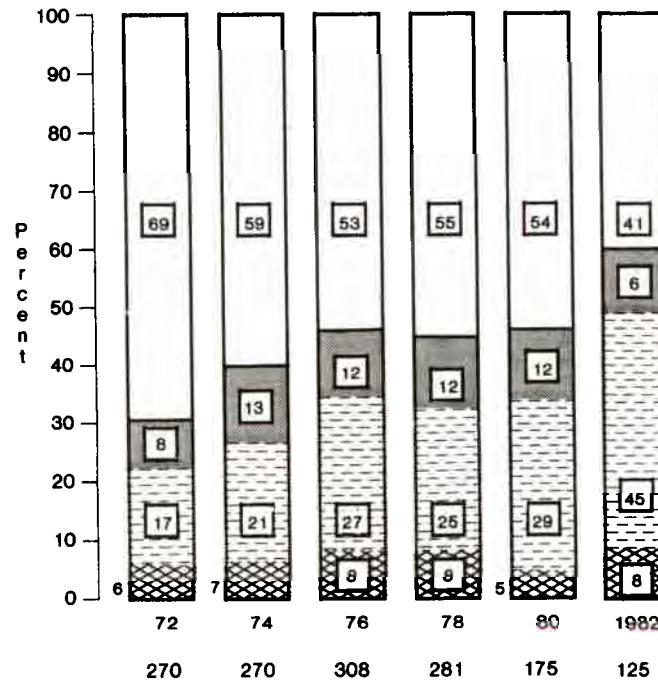
Lumber



Veneer and Plywood



Shake and Shingle



Pulp and Board

Fuel

Other Uses

Unused

HIGHLIGHTS

Industry Characteristics

■ 549 mills† total:

Type of mill	Number of mills	Single shift capacity
Sawmills	169	10.9 MMBF
Veneer & Plywood	27	4.5 MMSF (%" basis)
Pulp	21	12.3 M Tons (Daily)
Log Export	124	NA
Shake & Shingle	195	16.2 M Sq.
Pole, Post & Piling	13	54.9 MMBF (Peeling—yearly)

- o Grays Harbor County led with 102 operations.
- o The 42 largest sawmills (Class A) had 64 percent of the total sawmilling capacity.

Wood Consumption

- o 5.2 billion board feet of roundwood logs were consumed.
- o 31 million board feet (log scale) of peeler cores, cants, blocks, bolts and miscellaneous peeled products were consumed.
- o 5.5 million tons of chips, sawdust and shavings were consumed by the Pulp and Board Industry.

■ Leading counties in roundwood use were:

Cowlitz	1,051 MMBF
Snohomish	829 MMBF
Grays Harbor and Jefferson†	825 MMBF
Kitsap and Pierce†	722 MMBF

†Combined to avoid disclosure

[†]For presentation use the term "mill" is used for all types of primary processing plants although it is recognized that some are better described by other terms such as export operations or facilities, and pole and piling yards.

More wood was consumed in each of these counties or county combinations than in the combined Central Washington and Inland Empire Economic Areas.

■ Roundwood use by industry:

Log export	41%
Sawmills	41%
Pulp & board	10%
Veneer & plywood	6%
Shake & shingle.....	2%
Pole, post & piling.....	<.5%

- o 84 percent of total wood used by Pulp and Board was in the form of chips, sawdust, shavings and wastepaper.
- o 88 percent of all log volume used was from sound timber.
- o 46 percent of roundwood volume was Douglas fir; 35 percent hemlock; and 5 percent western redcedar.
- o 5 percent of all log volume was imported; slightly less than 50 percent of this volume came from Oregon.

- o 63 percent of log volume came from forest-industry timberlands; 16 percent from National Forests; 10 percent from State.

- o 74 percent of National Forest log volume statewide came from combined harvests in the Gifford Pinchot, Olympic and Mt. Baker-Snoqualmie National Forests; 26 percent from Gifford Pinchot and 24 percent each from Olympic and Mt. Baker-Snoqualmie.

Residues

4.3 million tons of wood and bark residues were generated by:

Type of mill	Percent	Million tons
Sawmills	77	3.3
Veneer & Plywood	17	0.7
Shake & Shingle & Other	6	0.3

- o 75 percent of all residue was wood: 25 percent was bark. Ninety-seven percent of wood residues and 97 percent of the bark were used. There were 118,427 tons of wood and bark unused.
- o 56 percent of wood residue went to Pulp and Board; 30 percent to fuel; 11 percent other uses; 3 percent was unused.